Summery worksheet

Oxfam-UNHCR Centralized Fecal Sludge Treatment Plant

Oxfam road, Camp 4 Ext. Kutupalogn Area, Ukhiya, Cox's bazar

Load at	Agency	Trucking		Pumping	Total Load, L	L in m3	First Load Date	Reporting Date
		KTP	BK	KTP				
Sludge load at Lagoon 1	Oxfam	3,849,000	280,000	1,591,000	5,720,000	5720	14/01/19	5/9/2019
	Brac	733,600	0	0	733,600	733.6	9/3/2019	5/9/2019
	NGO Forum	14,000			14,000	14	14/01/19	5/9/2019
Sludge load at Lagoon 2	Oxfam	2009500	0	394000	2,403,500	2403.5	19/12/2018	5/9/2019
	Brac	119,200	0	0	119,200	119.2	4/2/2019	5/9/2019
	NGO Forum	0	0	0	0	0		5/9/2019

Total sludge Load	L	m3
Total Load on Lagoon 1	6,467,600	6,468
Total Load on Lagoon 2	2,522,700	2,523
Total load in Plant	**8,990,300**	**8,990**

Polishing Pond Monitoring Sheet

Sl no	Date	Liquid Hight in cm	Recirculation		Alum Mixing work			CL2 mixing		Rate of Flow (min/l)
			Yes	no	Yes	Turbidity	No	Yes	no	
1	5/23/2020	106								
2	5/27/2020	115								
3	5/28/2020	117								
4	5/31/2020	120								
5	6/1/2020	123								
6	6/2/2020	127								
7	6/3/2020	130								
8	6/4/2020	133								
9	6/5/2020	115								
10	6/6/2020	117								
11	6/7/2020	136								
12	6/8/2020	137								
13	6/9/2020	139								
14	6/10/2020	136								
15	6/11/2020	136		√			√			
16	6/12/2020	136		√			√			
17	6/13/2020	137		√			√			
18	6/14/2020	139		√			√			8
19	6/15/2020	136		√			√			
20	6/16/2020	148		√			√		√	14
21	6/17/2020	160		√			√		√	20
22	6/18/2020	165		√			√		√	15
23	6/19/2020	150		√			√		√	
24	6/20/2020	140		√			√		√	
25	6/21/2020	137		√			√		√	10
26	6/22/2020	137		√			√		√	8
27	6/23/2020	137		√			√		√	2
28	6/24/2020	136		√			√		√	2
29	6/25/2020	135		√			√		√	1.5
30	6/26/2020	135		√			√		√	1.5
31	6/27/2020	141		√			√		√	3
32	6/28/2020	142		√			√		√	20
33	6/29/2020	137		√			√		√	5
34	6/30/2020	136		√			√		√	2
35	7/1/2020	140		√			√		√	5
36	7/2/2020	145		√			√		√	10
37	7/3/2020	138		√			√		√	4
38	7/4/2020	137		√			√		√	3
39	7/5/2020	143		√			√		√	10
40	7/6/2020	144		√			√		√	20
41	7/7/2020	141		√			√		√	14
42	7/8/2020	137		√			√		√	10
43	7/9/2020	137		√			√		√	20

44	7/10/2020	140		√			√		√	10
45	7/11/2020	141		√			√		√	15
46	7/12/2020	139		√			√		√	14
47	7/13/2020	143		√			√		√	20
48	7/14/2020	142		√			√		√	15
49	7/15/2020	139		√			√		√	10
50	7/16/2020	137		√			√		√	5
51	7/17/2020	138		√			√		√	3
52	7/18/2020	138		√			√		√	3
53	7/19/2020	145		√			√		√	25
54	7/20/2020	141		√			√		√	20
55	7/21/2020	143		√			√		√	25
56	7/22/2020	148		√			√		√	30
57	7/23/2020	138		√			√		√	10
58	7/24/2020	137		√			√		√	12
59	7/25/2020	136		√			√		√	10
60	7/26/2020	136		√			√		√	8
61	7/27/2020	137		√			√		√	10
62	7/28/2020	139		√			√		√	10
63	7/29/2020	138		√			√		√	7
64	7/30/2020	140		√			√		√	13
65	7/31/2020	137		√			√		√	20
66	8/1/2020	141		√			√		√	20
67	8/2/2020	140		√			√		√	13
68	8/3/2020	146		√			√		√	20
69	8/4/2020	142		√			√		√	22
70	8/5/2020	138		√			√	√		30
71	8/6/2020	137		√			√	√		20
72	8/7/2020	135		√			√	√		15
73	8/8/2020	146		√			√	√		10
74	8/9/2020	145		√			√	√		8
75	8/10/2020	138		√			√	√		25
76	8/11/2020	137		√			√	√		20
77	8/12/2020	135		√			√	√		15
78	8/13/2020	146		√			√	√		35
79	8/14/2020	145		√			√	√		20
80	8/15/2020	138		√			√	√		15
81	8/16/2020	145		√			√	√		35
82	8/17/2020	143		√			√	√		20
83	8/18/2020	145		√			√	√		20
84	8/19/2020	143		√			√	√		20
85	8/20/2020	145		√			√	√		45
86	8/21/2020	143		√			√	√		20
87	8/22/2020	144		√			√	√		20
88	8/23/2020	140		√			√	√		18
89	8/24/2020	139		√			√	√		18
90	8/25/2020	138		√			√	√		17

91	8/26/2020	144		√			√	√		30
92	8/27/2020	140		√			√	√		15
93	8/28/2020	140		√			√	√		18
94	8/29/2020	140		√			√	√		15
95	8/30/2020	140		√			√	√		10
96	8/31/2020	141		√			√	√		8
97	9/1/2020	139		√			√	√		7
98	9/2/2020	138		√			√	√		10
99	9/3/2020	139		√			√	√		9
100	9/4/2020	139		√			√	√		30
101	9/5/2020	139		√			√	√		22
102	9/6/2020	139		√			√	√		30
103	9/7/2020	141		√			√	√		9
104	9/8/2020	141		√			√	√		30
105	9/9/2020	142		√			√	√		22
106	9/10/2020	142		√			√	√		30
107	9/11/2020	142		√			√	√		0
108	9/12/2020	142		√			√	√		0
109	9/13/2020	139		√			√	√		10
110	9/14/2020	138		√			√	√		7
111	9/15/2020	139		√			√	√		7
112	9/16/2020	139		√			√	√		8
113	9/17/2020	138		√			√	√		7
114	9/18/2020	143		√			√	√		8
115	9/19/2020	140		√			√	√		25
116	9/20/2020	145		√			√	√		23
117	9/21/2020	144		√			√	√		30
118	9/22/2020	145		√			√	√		25
119	9/23/2020	144		√			√	√		27
120	9/24/2020	145		√			√	√		25
121	9/25/2020	145		√			√	√		27
122	9/26/2020	145		√			√	√		24
123	9/27/2020	139		√			√	√		12
124	9/28/2020	139		√			√	√		7
125	9/29/2020	138		√			√	√		8
126	9/30/2020	137		√			√	√		10
127	10/1/2020	145		√			√	√		15
128	10/2/2020	140		√			√	√		13
129	10/3/2020	142		√			√	√		10
130	10/4/2020	140		√			√	√		7
131	10/5/2020	140		√			√	√		6
132	10/6/2020	138		√			√	√		3
133	10/7/2020	138		√			√	√		2
134	10/8/2020	139		√			√	√		1
135	10/9/2020	139		√			√	√		4
136	10/10/2020	140		√			√	√		6
137	10/11/2020	139		√			√	√		7

138	10/12/2020	142		√			√	√		5
139	10/13/2020	140		√			√	√		17
140	10/14/2020	139		√			√	√		8
141	10/15/2020	138		√			√	√		7
142	10/16/2020	138		√			√	√		2
143	10/17/2020	138		√			√	√		6
144	10/18/2020	136		√			√	√		8
145	10/19/2020	137		√			√	√		0
146	10/20/2020	138		√			√	√		0
147	10/21/2020	139		√			√	√		7
148	10/22/2020	137		√			√	√		10
149	10/23/2020	138		√			√	√		15
150	10/24/2020	139		√			√	√		30
151	10/25/2020	142		√			√	√		12
152	10/26/2020	142		√			√	√		8
153	10/27/2020	139		√			√	√		7
154	10/28/2020	138		√			√	√		5
155	10/29/2020	138		√			√	√		4
156	10/30/2020	139		√			√	√		12
157	10/31/2020	140		√			√	√		15
158	11/1/2020	141		√			√	√		14
159	11/2/2020	140		√			√	√		18
160	11/3/2020	139		√			√	√		20
161	11/4/2020	138		√			√	√		17
162	11/5/2020									
163	11/6/2020									
164	11/7/2020									
165	11/8/2020									
166	11/9/2020									
167	11/10/2020									
168	11/11/2020									
169	11/12/2020									
170	11/13/2020									
171	11/14/2020									
172	11/15/2020									
173	11/16/2020									
174	11/17/2020									
175	11/18/2020									
176	11/19/2020									
177	11/20/2020									
178	11/21/2020									
179	11/22/2020									
180	11/23/2020									
181	11/24/2020									
182	11/25/2020									
183	11/26/2020									
184	11/27/2020									

185	11/28/2020									
186	11/29/2020									
187	11/30/2020									
188	12/1/2020									
189	12/2/2020									
190	12/3/2020									
191	12/4/2020									
192	12/5/2020									
193	12/6/2020									
194	12/7/2020									
195	12/8/2020									
196	12/9/2020									
197	12/10/2020									
198	12/11/2020									
199	12/12/2020									
200	12/13/2020									
201	12/14/2020									
202	12/15/2020									
203	12/16/2020									
204	12/17/2020									
205	12/18/2020									

Final Effluent				Remarks
Ph	Rate of Algaes	Fecal Coliform	Escherichia Coli	
				Raining
7.7				Raining
				Raining
7.2				Raining
7.5				Raining
8.5				Raining
				Raining
				Raining
8.2				
7.9				
8.2				
7.2				
7.2				
7.1				raining
8.1				raining
7.1				
7.2				
7.3				raining
7.2				raining
7.2				
7.2				
7.3				raining
7.1				raining
7				raining
7.1				raining
7.2				raining

7.2				raining
7.3				raining
8.3				raining
7.6				raining
8.2				raining
8.2				
8.2				Raining
8.2				Raining
8.2				Raining
8.2				Raining
8.2				Raining
8.2				Raining
8.1				Raining
8.2				
8.2				
8.2				
8.2				
8.2				
8.2				
8.2				
8.1				raining
8.2				
8.1				raining
8.2				
7.9				raining
8				raining
8				
8				
8.1				
7.9				raining
7.8				
7.7				
7.8				
7.8				
7.8				raining
7.9				
7.9				
8				raining
8.1				raining
8.2				raining
8.2				raining
8.2				raining
7.7				
7.7				raining
7.6				
8.1				
8				

8.2				raining
8.3				
8.1				
8.2				
8.2				
8.1				raining
8.2				
8.4				
8.5				
8.6				
8.5				
8.2				
8.3				raining
8.6				raining
8.5				raining
8.2				raining
7.9				
8				
8.1				
8.1				
7.9				
7.9				
7.9				
8				raining
7.9				raining
8				raining
8				raining
8				raining
8				raining
7.9				raining
7.2				raining
7.2				raining
7.9				
8.2				
8.2				
8.2				
8.7				Raining
8.7				
8.6				
8.7				
8.9				
8.9				
8.8				
8.9				
8.6				
8.4				
8.3				

8.2				
8.2				
8.2				
8.2				
8.3				
8.3				
8.2				
0				
0				
7.9				
7.9				
8				
7.8				
7.8				
7.9				
7.9				
7.9				
7.9				
7.9				
7.8				Raining
7.9				Raining
7.6				Raining
7.7				Raining
7.9				Raining

		Parameter			
		Bacteriological	Physio-chem		
Sample Source	Sampling date	Fecal Coliform (FCU/100 ml)	pH	Turbidity (NTU)	COD (mg/L)
Influent Lagoon	1/9/2020		6.59		1695
Effluent Lagoon	1/9/2020		6.92		930
Upflow outlet	1/9/2020		7.04		705
Final Effluent	1/9/2020		7.03		72
Influent Lagoon(RAW)	2/9/2020		6.78		3240
Effluent Lagoon(2)	2/9/2020		6.8		2940
Upflow outlet	2/9/2020				945
Trickling Outlet	2/9/2020				2880
Final Effluent	2/9/2020				337
Influent Lagoon(RAW)	9/9/2020		7.7		2030
Effluent Lagoon(2)	9/9/2020		7.5		1020
Upflow outlet	9/9/2020		7.5		830
Trickling Outlet	9/9/2020		8		1140
Final Effluent	9/9/2020		8.3		171
Influent Lagoon(RAW)	17/09/20		7.6		
Effluent Lagoon(2)	17/09/20		7.6		
Upflow outlet	17/09/20		7.8		
Trickling Outlet	17/09/20		8.3		

Final Effluent	17/09/20		8.4		
Influent Lagoon(RAW)	23/09/20		7.8		
Effluent Lagoon(2)	23/09/20		7.7		
Upflow outlet	23/09/20		7.8		
Trickling Outlet	23/09/20		8.3		
Final Effluent	23/09/20		8.4		
Influent Lagoon(RAW)	16/09/20	.	7.8		5
Effluent Lagoon(2)	16/09/20		7.6		
Upflow outlet	16/09/20		7.7		
Trickling Outlet	16/09/20		8.2		
Final Effluent	16/09/20		8.4		
Influent Lagoon(RAW)	10/9/2020		7.8		
Effluent Lagoon(2)	10/9/2020		7.5		
Upflow outlet	10/9/2020		7.8		
Trickling Outlet	10/9/2020		8.2		
Final Effluent	10/9/2020		8.2		
Influent Lagoon(RAW)	8/9/2020		7.7		
Effluent Lagoon(2)	8/9/2020		6.98		
Upflow outlet	8/9/2020		7.09		
Trickling Outlet	8/9/2020		7.4		
Final Effluent	8/9/2020		8.2		

Influent Lagoon(RAW)	27/09/2020		7.9		
Effluent Lagoon(2)	27/09/2020		7.7		
Upflow outlet	27/09/2020		7.7		
Trickling Outlet	27/09/2020		8		
Final Effluent	27/09/2020		8.3		
Influent Lagoon(RAW)	11/10/2020		7.4		4350
Effluent Lagoon(2)	11/10/2020		7		860
Upflow outlet	11/10/2020		7		530
Trickling Outlet	11/10/2020		7.4		820
Final Effluent	11/10/2020		7.5		171
Influent Lagoon(RAW)	12.10.20		7.08		
Effluent Lagoon(2)	12.10.20		6.94		
Upflow outlet	12.10.20		7.14		
Trickling Outlet	12.10.20		7.59		
Final Effluent	12.10.20		7.78		
Influent Lagoon(RAW)	13.10.20		7.35		
Effluent Lagoon(2)	13.10.20		7.09		
Upflow outlet	13.10.20		7.20		
Trickling Outlet	13.10.20		7.91		
Final Effluent	13.10.20		7.96		

Influent Lagoon(RAW)	14.10.20		7.45		
Effluent Lagoon(2)	14.10.20		7.22		
Upflow outlet	14.10.20		7.44		
Trickling Outlet	14.10.20		7.93		
Final Effluent	14.10.20		7.78		
Influent Lagoon(RAW)	15.10.20		7.13		
Effluent Lagoon(2)	15.10.20		7.07		
Upflow outlet	15.10.20		7.26		
Trickling Outlet	15.10.20		7.86		
Final Effluent	15.10.20		7.80		
Influent Lagoon(RAW)	18.10.20		7.23		
Effluent Lagoon(2)	18.10.20		6.29		
Upflow outlet	18.10.20		7.09		
Trickling Outlet	18.10.20		7.29		
Final Effluent	18.10.20		7.49		
Influent Lagoon(RAW)	19.10.20		7.35		
Effluent Lagoon(2)	19.10.20		7.12		
Upflow outlet	19.10.20		7.30		
Trickling Outlet	19.10.20		7.65		
Final Effluent	19.10.20		7.70		

Influent Lagoon(RAW)	20.10.20		7.37		
Effluent Lagoon(2)	20.10.20		7.28		
Upflow outlet	20.10.20		7.10		
Trickling Outlet	20.10.20		7.49		
Final Effluent	20.10.20		7.78		
Influent Lagoon(RAW)	21.10.20		7.34		
Effluent Lagoon(2)	21.10.20		7.09		
Upflow outlet	21.10.20		7.08		
Trickling Outlet	21.10.20		7.77		
Final Effluent	21.10.20		7.96		
Influent Lagoon(RAW)	22.10.20		7.19		
Effluent Lagoon(2)	22.10.20		7.06		
Upflow outlet	22.10.20		7.39		
Trickling Outlet	22.10.20		7.61		
Final Effluent	22.10.20		7.64		
Influent Lagoon(RAW)	27.10.20		6.95		
Effluent Lagoon(2)	27.10.20		6.93		
Upflow outlet	27.10.20		7.30		
Trickling Outlet	27.10.20		7.70		
Final Effluent	27.10.20		7.53		

Influent Lagoon(RAW)	28.10.20		6.96		
Effluent Lagoon(2)	28.10.20		7.06		
Upflow outlet	28.10.20		7.29		
Trickling Outlet	28.10.20		7.74		
Final Effluent	28.10.20		7.66		
Influent Lagoon(RAW)	29.10.20		7.26		+++
Effluent Lagoon(2)	29.10.20		7.13		1490
Upflow outlet	29.10.20		7.31		1610
Trickling Outlet	29.10.20		7.64		880
Final Effluent	29.10.20		7.83		326
Influent Lagoon(RAW)					
Effluent Lagoon(2)					
Upflow outlet					
Trickling Outlet					
Final Effluent					
Influent Lagoon(RAW)					
Effluent Lagoon(2)					
Upflow outlet					
Trickling Outlet					
Final Effluent					

Influent Lagoon(RAW)					
Effluent Lagoon(2)					
Upflow outlet					
Trickling Outlet					
Final Effluent					
Influent Lagoon(RAW)					
Effluent Lagoon(2)					
Upflow outlet					
Trickling Outlet					
Final Effluent					
Influent Lagoon(RAW)					
Effluent Lagoon(2)					
Upflow outlet					
Trickling Outlet					
Final Effluent					
Influent Lagoon(RAW)					
Effluent Lagoon(2)					
Upflow outlet					
Trickling Outlet					
Final Effluent					

Influent Lagoon(RAW)					
Effluent Lagoon(2)					
Upflow outlet					
Trickling Outlet					
Final Effluent					
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Effluent Lagoon(2)					
Upflow outlet					
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Effluent Lagoon(2)					
Upflow outlet					
Trickling Outlet					
Final Effluent					

nical				
Total Setteable Solid (Mg/L)	TDS (ppt)	EC (ms)	Column1	Remarks concerning results
90				
0.2				
0.02				
120				
0.5				
70	4.53	6.25		
0.2	5.04	7.03		
	5.14	7.08		
	4.3	5.93		
	1.34	18.6		
100	5.27	7.45		
0.1	5.3	7.39		
	4.97	6.98		
	3.99	5.57		

	1.96	2.76		
40	6.46	9.32		
0.02	5.37	7.23		
	4.98	6.79		
	4.22	5.82		
	2.45	3.36		
245		5.88		
0.2	5.1	7.17		
	5.19	7.29		
	3.91	5.55		
	2	2.83		
125	5.38	7.5		
0.1	5.27	7.46		
	5.25	7.41		
	4.63	6.56		
	1.57	2.21		
	4.48	6.35		
	5.33	7.69		
	5.39	7.7		
	4.44	6.36		
	1.06	15.53		

32	5.1	6.85		
0.03	5	6.78		
	4.89	6.13		
	4.48	3.68		
	2.31	3		
15	5.07	7.2		
0.2	5.16	7.28		
	5.03	6.99		
	4.53	6.27		
	1.64	2.26		
150	5.14	7.33		
0.3	5.21	7.47		
	5.20	7.34		
	4.56	6.64		
	1.61	2.36		
44	4.81	6.87		
0.2	5.37	7.79		
	5.20	7.53		
	4.68	6.26		
	1.62	2.39		

56	5.55	7.97		
0.05	5.30	7.33		
	5.00	7.32		
	4.66	6.36		
	2.45	2.45		
140	5.83	8.22		
0.4	5.50	7.91		
	5.26	7.53		
0.2	4.60	6.75		
	1.64	2.42		
130	4.36	6.16		
0.2	5.68	8.20		
	5.57	7.95		
1	5.95	7.14		
	1.67	2.39		
165	5.49	7.80		
0.3	5.55	7.93		
	5.28	7.47		
0.2	4.37	6.28		
	1.68	2.37		

17	4.69	6.58		
0.1	5.34	7.53		
	3.39	4.69		
0.2	3.60	5.12		
	1.63	2.38		
40	4.04	5.35		
0.2	5.62	8.03		
	4.42	6.26		
	3.62	5.18		
	5.18	2.44		
300	5.10	7.47		
0.4	5.56	8.05		
	5.08	7.39		
0.03	4.60	6.53		
	1.97	2.84		
30	4.60	6.54		
0.1	5.70	8.20		
	5.10	7.40		
	4.60	6.70		
	2.38	3.43		

700	5.53	7.95		
1	5.67	8.12		
	5.43	7.85		
	3.84	5.43		
	2.33	3.32		
260	4.69	6.52		
0.2	5.73	8.15		
	5.48	7.88		
	4.40	6.02		
	2.20	3.40		

